



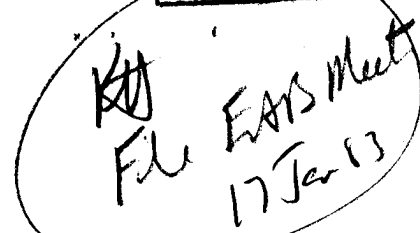
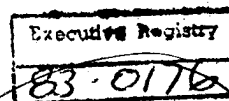
THE SECRETARY OF COMMERCE
Washington, D.C. 20230

JAN 7 1983

Not referred to OMB. Waiver applies.

MEMORANDUM FOR: WILLIAM CLARK
Assistant to the President
for National Security Affairs

Subject: PRC Hybrid Computer Case



Background

After several years of U.S. Government review, Electronic Associates, Incorporated (EAI) received approval in 1981 to export a HYSHARE 700 hybrid computer system to the Harbin Polytechnical University in the People's Republic of China for use in scientific research and education. During the review several items of hardware and one computer software program were deleted from the original export as a U.S. Government condition for approval. The end user states that the approved configuration, which comprises one digital computer and three analog processing units, does not meet his requirements, and that studies which are of national priority are adversely affected. EAI requested the restoration of the deleted items, and this has been under review since July 1981. EAI reports that if the request is denied EAI will lose a sale worth \$820,000 and will have to pay a penalty of about \$600,000.

Basic Factual Situation

The basic facts on the licensing issue are not in dispute:

- o The HYSHARE 700 system is presently used by the U.S. Defense establishment for the design of strategic nuclear delivery systems (White Sands Missile Range currently uses four such systems).
- o Major Defense contractors (i.e., Rockwell, Lockheed, and Martin Marietta) use such systems for a range of strategic applications (B-1 aerodynamic simulations, space shuttle design, Pershing II ballistic missile simulation, cruise missile design simulation).
- o The U.S. Air Force uses such systems for electronic warfare simulations.
- o Hybrid computers are less accurate for missile simulation and development than digital computers and are slowly being phased out. (EAI is one of the few remaining U.S. manufacturers and it is closing down this product line.)

Not referred to DOC. Waiver applies.

Classified by: L.J. Brady
Declassify on: OADR



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- o Computers routinely approved for licenses to China can perform similar simulation work, though at less speed.
- o In missile simulation and development, hybrid computers generally yield less accuracy and flexibility, although for use in the early stages of missile design (e.g., in simulating missile performance), it is used to identify the best areas of approach. Such systems are not preferred when detailed accurate calculations are required (digital computers are preferred).
- o Harbin Polytechnical Institute, which seeks enhancement of the current hybrid computer, is subordinate to the 7th Machine Building Industry which presently contributes to the development and manufacture of strategic missiles.
- o Harbin is also located near the Military Engineering Institute, which is heavily engaged in military research.
- o Intelligence sources expect the hybrid computer to be used for missile development.

Would the Sale Significantly Enhance PRC Missile Development Program?

Although the basic facts outlined above are not in dispute among the agencies, there are considerable differences of opinion as to the conclusions to be drawn from these facts. Namely, would the sale of the 700 hybrid computer significantly enhance the PRC's missile development program and thereby constitute a significant risk to our national security? Differences on this question may be stated as follows:

- o The Science Advisor to the President:
 - Export of the HYSHARE 700 computer "...does not entail a major risk to our national security and is thoroughly consonant with my interpretation of the President's export control policy for the PRC."
 - "...It is my opinion that honoring this request would have little impact on their (PRC) military capability," as "facilitating their military trajectory calculations hardly compromises our own strategic interests."
- o Defense Department:
 - Contends that the upgrade would make a significant contribution to the design of missile delivery systems for nuclear weapons. Asserts that the technology used is not obsolete as it is still being used by Defense laboratories and the Defense services, the last sale of a hybrid computer to the Defense laboratories occurring in 1979.

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- Further contends that the licensing of this computer upgrade substantially exceeds the President's export control policy to China. Defense questions whether any exceptions to blanket restrictions on exports can be authorized in the four mission areas within the President's policy, namely, nuclear weapons and their delivery systems, electronic and antisubmarine warfare, and intelligence gathering.
- o State Department:
 - Recommends approval of the license.
- o Commerce Department:
 - Agrees that the upgraded computer would be useful to the Chinese for missile simulation work. However because such a computer cannot be used for detailed missile design work, Commerce believes the President's policy of "predisposition of approval" of this case would not entail major risk to our national security.
 - Analyses indicate the PRC could configure already licensed equipment to perform essentially the same missile development work but it would take longer.
 - Further believes that approval would be fully in keeping with the President's export control policy to China as enunciated in June 1981 and elaborated in May 1982.

Resolution

Given the different views on this matter and the fact that it is symptomatic of a continuing difference of opinion between Defense and other concerned Departments as to the proper interpretation of the President's policy on exports to the PRC, I am convening a meeting of the Export Administration Review Board (EARB) on January 17, 1983. It is my intention that we reach a decision on this specific case as well as resolve broader differences of view as to PRC licensing policy generally.

Mac Baldrige
Secretary of Commerce

Attachment - Letter dated December 8, 1982
from Science Advisor Keyworth
to Under Secretary

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THE WHITE HOUSE

WASHINGTON

December 8, 1982

Dear Lionel,

Considering the many discussions that have ensued about the request for export of the HYSHARE 700 computer to the People's Republic of China, I feel compelled to explain my strong support for this request.

The primary issue is not the intrinsic technology level of the hardware, which is mid-1970's vintage, but the enhanced system capability provided by the HYSHARE 700. It incorporates analog computers with twice the capability contained in a downgraded version that is currently approved for export to the PRC.

However, while this expanded system capability does offer the potential for practical solution of more complex problems, it is my opinion that honoring this request would have little impact on their military capability. Facilitating their missile trajectory calculations hardly compromises our own strategic interests. Their ballistic missiles represent a "force de frappe" to deter the Soviet Union, albeit to a marginal degree. If we choose to reject every request of potential military value, regardless of its significance, then I question how the President's directives to implement a more liberal export control policy toward China can be achieved. Export of the HYSHARE 700 computer does not entail "major risks to our national security" and is thoroughly consonant with my interpretation of the President's export control policy for the PRC. Considering the great importance of maintaining and extending U.S. relations with the People's Republic, I strongly recommend approval of this request.

Very truly yours,



G. A. Keyworth

Science Advisor to the President

The Honorable Lionel H. Olmer
Under Secretary for International
Trade
Department of Commerce
Washington, D.C. 20230

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